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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,351	06/28/2001	Mark Thomas Dawson		2176

7590 10/19/2004

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EXAMINER	
KIBLER, VIRGINIA M	
ART UNIT	PAPER NUMBER
2623	7

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/892,351	DAWSON, MARK THOMAS	
	Examiner	Art Unit	
	Virginia M Kibler	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-25* is/are rejected.

7)☒ Claim(s) *1-25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Preliminary Amendment

1. The preliminary amendment filed 10/21/02 is considered non-compliant as communicated in the Notice of Non-Compliant Amendment (37 CFR 1.121) mailed 3/27/03. Examination is based on the merits without entry of the originally proposed preliminary amendment.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

3. Claims 1-25 are objected to because of the following informalities: "colour" should be changed to "color" in claim 1, lines 12, 36, 40, and 43, claim 2, lines 6 and 12, claim 4, lines 30, 35, 38, 41, 45, 57, and 64, claim 6, lines 4 and 5, claim 8, lines 28 and 32, and claim 19, lines 12 and 33;

"Anaglyphic production" should be changed to "1. Anaglyphic production" in claim 1, line 1;

"the display two" should be changed to "the display of two" in claim 2, line 8;

"d. a selective color" should be changed to "e. a selective color" in claim 2, line 14;

"claim 1applied" should be changed to "claim 1 applied" in claim 9, line 4;

"spectral split;" should be changed to "spectral split." in claim 14, line 17;

"parts j and k" should be changed to "parts i and j" in claim 19, line 47;

"20.An" should be changed to "20. An" in claim 20, line 1;

"21.An" should be changed to "21. An" in claim 21, line 1;

"d. display of the resultant" should be changed to "e. display of the resultant" in claim 23, line 14.

The phrase "to an observer or;" in claim 2, line 13 is unclear.

The phrase "of synchronizing signal detection and;" in claim 4, line 61 is unclear.

The phrase "the opposing filter or" in claim 8, lines 33-34 is unclear.

The phrase "of RBG format via refraction or;" in claim 13, line 7 is unclear.

The phrase "through the opposing filter or;" in claim 19, line 39 is unclear.

Regarding claim 2, line 3, the limitations from claim 1 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 8, line 4, the limitations from claim 4 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 9, line 4, the limitations from claim 1 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 11, line 3, the limitations from claim 9 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 12, line 5, the limitations from claim 1 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 13, line 3, the limitations from claim 12 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 15, line 7, the limitations from claim 4 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 17, line 4, the limitations from claim 6 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 19, line 4, the limitations from claim 15 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 20, line 4, the limitations from claim 15 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 22, line 3, the limitations from claim 20 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 24, line 3, the limitations from claim 23 Applicant wants to be included should be explicitly recited in the claim.

Regarding claim 25, lines 4-7, the limitations from claim 4 Applicant wants to be included should be explicitly recited in the claim.

Claims 3, 5, 7, 10, 16, and 18 depend on objected claims, and are thereby objected to.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the resulting anaglyphic image" in lines 22-23. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 19, the phrase "a first power supply means" in lines 5 and 25 renders the claim indefinite because two separate first power supply means are claimed.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaine et al. (US 6,037,971).

Regarding claim 1, McLaine et al. ("McLaine") discloses an anaglyphic production method including:

a) synchronizing the images of a stereo pair to achieve an image pair that consists of a first image and a second image (Col. 7, lines 1-8; Figure 3);

d) effecting selective color filter treatments for control of increasing/decreasing the brightness in a resulting anaglyphic image by selectively increasing/decreasing the saturation of the image pair to the nth degree (Col. 7, lines 37-67, Col. 8, lines 1-20); and

i) effecting an anaglyphic color channel saturation to the selective color filter treated pair by control of RGB levels output values via levels (Col. 7, lines 37-67, Col. 8, lines 1-46).

McLaine discloses selective color filter treatments for control of increasing/decreasing the brightness in a resulting anaglyphic image by selectively increasing the saturation of the image pair to the nth degree, but does not explicitly stat increasing the saturation of the black color records. McLaine discloses that when viewing a pure red or pure blue region, one eye will perceive black and the other eye will perceive nothing (Col. 2, lines 40-45) and eliminating the disturbance perceived when either pure red or pure blue portions of an image are viewed by increasing/decreasing the saturation (Figure 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the selective color filter treatments for control of increasing/decreasing the brightness disclosed by McLaine to expressly recognize selectively increasing/decreasing the saturation of the black color records because it eliminates the disturbing effects of viewing pure blue or pure red colors.

Note, as claimed steps b, c and e-h are optional, and are thereby not required limitations. Steps j and k are further limitations on the optional "luminosity compressed anaglyphic composite image," and are thereby not required limitations.

Regarding claim 2, the arguments analogous to those presented above for claim 1 are applicable to claim 2. McLaine discloses an anaglyphic record (Col. 7, lines 1-24), a display for the display of two anaglyphic color channels that consist of more than two color saturations and

represent an anaglyphic record (Col. 8, lines 50-67, Col. 9, lines 1-12), and anaglyphic filter viewing gels that enable the selective transmission of a color corresponding anaglyphic color channel display to an observer (Col. 1, lines 65-67, Col. 2, lines 1-47; Col. 7, lines 37-39). While McLaine does not appear to disclose a printing system, McLaine discloses that it is known to have prints that are anaglyphs. Therefore, it would have been obvious to one of ordinary skill in the art to have modified the display of anaglyphic record disclosed by McLaine to include a printing system because it would enhance the versatility of the system to include a printing system as an alternative display of the anaglyphic record. Note, the Examiner interprets the claim language as requiring only one of steps d-f.

Regarding claim 3, McLaine discloses an anaglyphic record that may exhibit a still image as print and displayed on a monitor perceived stereoscopically as 3-D and being monochromatic (Col. 1, lines 49-51; Col. 2, lines 30-32) with balanced contrasts from the whole color spectrum within each anaglyphic color channel perceived via anaglyphic filter means with spectral split and where individual color channels are perceived as 2-D with contrasts from the whole color spectrum and the monitor viewed unaided as 2-D with contrasts from the whole color spectrum present in either color channel vial color removal RBG filter/switch (Figures 5, 7-8; Col. 8, lines 50-67, Col. 9, lines 1-13).

Regarding claim 4, McLaine discloses an anaglyphic production method including:

a) synchronizing the images of a stereo pair to achieve an image pair that consists of a first image and a second image (Col. 7, lines 1-8; Figure 3);

d) effecting selective color filter treatments for control of increasing/decreasing the brightness in a resulting anaglyphic image by selectively increasing/decreasing the saturation of the image pair to the nth degree (Col. 7, lines 37-67, Col. 8, lines 1-20);

i) effecting an anaglyphic color channel saturation to the selective color filter treated pair by control of RGB levels output values via levels (Col. 7, lines 37-67, Col. 8, lines 1-46); and

l) utilizing standard broadcasting equipment including transmitting and synchronizing (Figures 7 and 8), thereby effecting the application of index or synchronizing signals to the incidence of modulation rate at a consistent frequency.

McLaine discloses selective color filter treatments for control of increasing/decreasing the brightness in a resulting anaglyphic image by selectively increasing the saturation of the image pair to the nth degree, but does not explicitly stat increasing the saturation of the black color records. McLaine discloses that when viewing a pure red or pure blue region, one eye will perceive black and the other eye will perceive nothing (Col. 2, lines 40-45) and eliminating the disturbance perceived when either pure red or pure blue portions of an image are viewed by increasing/decreasing the saturation (Figure 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the selective color filter treatments for control of increasing/decreasing the brightness disclosed by McLaine to expressly recognize selectively increasing/decreasing the saturation of the black color records because it eliminates the disturbing effects of viewing pure blue or pure red colors.

Note, as claimed steps b, c, e-h, and m-q are optional, and are thereby not required limitations. Steps j and k are further limitations on the optional "luminosity compressed anaglyphic composite image," and are thereby not required limitations.

Regarding claim 6, as claimed the limitations are optional, and are thereby not required.

8. Claims 5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaine et al. (US 6,037,971) as applied to claims 4 and 6 above, and further in view of Roese et al. (US 4,424,529).

Regarding claim 5, the arguments analogous to those presented above for claim 4 is applicable to claim 5. McLaine discloses an image perceived stereoscopically as 3-D and monochromatic with balanced color contrasts (Figures 5 and 7), but does not appear to recognize including electro-optic/anaglyphic means. However, Roese et al. ("Roese") discloses that it is known to include a stereoscopic viewer that displays simultaneously and continuously by both eyes a 3-D image using electro-optic means where alternations between left and right views for viewing via electro-optic shutters (Col. 4, lines 9-26 and 46-60; Col. 5, lines 22-54). McLaine and Roese are combinable because they are from the same field of endeavor of stereoscopic images. At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified the anaglyphic display disclosed by McLaine to include electro-optic means. The motivation for doing so would have been because it is well known in the art and permits alternating left and images to be viewed by a user. Therefore, it would have been obvious to combine McLaine with Roese to obtain the invention as specified in claim 5.

Regarding claim 7, the arguments analogous to those presented above for claim 5 are applicable to claim 7.

Regarding claim 8, the arguments analogous to those presented above for claims 4 and 5 are applicable to claim 8. Roese discloses a power supply means 36 enabling signal detection means for the interception of the modulating program, for the detection of synchronizing signals

and field differentiated signals to determine the modulation rate and accordingly produce signals as representations of the modulation rate for transmission (Col. 4, lines 1-60), a display means 22, a means for the transmission of signals 34 representing synchronizing signals and signals representing the modulation rate to a receiving medium 50 incorporated with electro-optic viewing filters, a second power supply means 56 enabling a receiving means to receive a transmitted carrier signal and to detect and re-generate signals representing synchronizing signals and signals representing the modulation rate for their delivery to a switching logic means (Col. 4, lines 61-69, Col. 5, lines 1-47); a switching logic means 64 for the determination and selection of trigger voltages for the synchronization of electro-optic filter presentations (Col. 5, lines 22-47); and a modulating color record removal means that responds to the synchronizing voltage selection of the switching logic to effect a modulation of color removal synchronous with a selected modulating color channel (Figure 1; Col. 2, lines 29-60). Note, as claimed steps c, d, j, and k are optional, and are thereby not required limitations.

9. Claims 9, 11, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaine et al. (US 6,037,971) as applied to claims 1 and 4 above, and further in view of Taguchi et al. (US 5,850,580).

Regarding claim 9, McLaine does not appear to recognize using multiple image pairs or a lenticular lens array. However, Taguchi et al. ("Taguchi") discloses that it is known to use multiple image pairs a-d resulting in multiple images of fixed viewing orientation, horizontally interpolating the images at a frequency such that the interpolated representations of each image are specific to horizontal zones that will fit under each corresponding horizontally oriented lenticular lens, and a horizontally oriented lenticular lens array that is secured over the

horizontally interpolated images (Col. 18, lines 4-67, Col. 19, lines 1-10). McLaine and Taguchi are combinable because they are from the same field of stereoscopic images. At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified the anaglyphic display disclosed by McLaine to include multiple image pairs and a lenticular lens array. The motivation for doing so would have been because the use of a lenticular lens array is well known and routinely utilized in the art and using multiple image pairs enhances the viewpoint so that a viewer can enjoy 3-D images at any position. Therefore, it would have been obvious to combine McLaine with Taguchi to obtain the invention as specified in claim 9.

Regarding claim 11, the arguments analogous to those presented above for claims 2 and 9 are applicable to claim 11. Taguchi discloses a lenticular sheet consisting of an array of lenticular lenses of suitable pitch (Col. 14, lines 37-64; Col. 18, lines 20-41).

Regarding claim 25, McLaine discloses a camera for capture of an image pair (Col. 7, lines 9-24) and RGB color record removal filter/switch (Figure 2) that responds to switching logic to selectively and synchronously remove a color record to reveal an unaided and interactive choice of programs from the remnant anaglyphic color channel displays. The arguments analogous to those presented above for claim 9 are applicable to claim 25.

10. Claims 12, 13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaine et al. (US 6,037,971) as applied to claims 1 and 6 above, and further in view of Taguchi et al. (US 5,850,580) and Stuettler (US 5,870,137).

Regarding claim 12, McLaine does not appear to recognize using multiple image pairs. However, Taguchi discloses that it is beneficial to use two image pairs (Col. 16, lines 6-15). At the time of the invention, it would have been obvious to one of ordinary skill in the art to have

modified the anaglyphic display disclosed by McLaine to include multiple image pairs. The motivation for doing so would have been because using multiple image pairs enhances the viewpoint so that a viewer can enjoy 3-D images at any position. McLaine and Taguchi do not appear to recognize allocating the two anaglyphic records as odd and even field scans. However, Stuettler discloses that it is known to field interpolate two separate records into one image signal so as to separately allocate two records as odd and even field scans (Col. 6, lines 10-47). McLaine, Taguchi, and Stuettler are combinable because they are from the same field of endeavor of stereoscopic images. At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified the anaglyphic display disclosed by McLaine and Taguchi to include field interpolating two separate records into one image signal so as to separately allocate two records as odd and even field scans. The motivation for doing so would have been because it is well known in the art and provides a flicker-free display of a stereo image. Therefore, it would have been obvious to combine McLaine with Taguchi and Stuettler to obtain the invention as specified in claim 12.

Regarding claim 17, the arguments analogous to those presented above for claim 12 are applicable to claim 17.

Regarding claim 13, the arguments analogous to those presented above for claims 12, 2, and 9 are applicable to claim 13. Taguchi discloses unaided lenticular viewing of an interactive choice between the visual channels (Col. 18, lines 4-67, Col. 20, lines 36-50). Note, the Examiner interprets the claim language as requiring only one of steps b and c.

11. Claims 15 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaine et al. (US 6,037,971) as applied to claim 4 above, and further in view of Battersby (US 6,069,650) in view of Stuettler (US 5,870,137).

Regarding claim 15, McLaine does not appear to recognize using multiple image pairs. However, Battersby discloses that it is beneficial to use two image pairs (Abstract). At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified the anaglyphic display disclosed by McLaine to include multiple image pairs. The motivation for doing so would have been because using multiple image pairs enhances the viewpoint so that a viewer can enjoy 3-D images at any position. McLaine and Battersby do not appear to recognize allocating the two anaglyphic records as odd and even field scans. However, Stuettler discloses that it is known to field interpolate two separate records into one image signal so as to separately allocate two records as odd and even field scans (Col. 6, lines 10-47). McLaine, Battersby, and Stuettler are combinable because they are from the same field of endeavor of stereoscopic images. At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified the anaglyphic display disclosed by McLaine and Battersby to include field interpolating two separate records into one image signal so as to separately allocate two records as odd and even field scans. The motivation for doing so would have been because it is well known in the art and provides a flicker-free display of a stereo image. Therefore, it would have been obvious to combine McLaine with Battersby and Stuettler to obtain the invention as specified in claim 15.

Regarding claim 20, the arguments analogous to those presented above for claim 15 are applicable to claim 20. Battersby discloses a display using a lenticular array of lenses where the

orientation of the lenticular array of lenses is vertical and consists of a frequency of lenses such that each lenticular lens covers an odd an even field scan line so as to effect a horizontal channeling (Col. 3, lines 62-67, Col. 4, lines 1-30) and effecting a modulating cycle of color record removal synchronous with modulating color records to assigned to a selected modulating anaglyphic color channel to enable an autostereoscopic perception of the remnant modulating records via lenticular means (Abstract; Col. 3, lines 47-67, Col. 4, lines 1-30).

Regarding claim 21, the arguments analogous to those presented above for claim 20 are applicable to claim 21. Battersby discloses a switch-able choice between two separate stereoscopic visual channels and 3-D record (Col. 1, lines 64-67, Col. 2, lines 1-35; Col. 4, lines 61-67, Col. 5, lines 1-10; Col. 6, lines 31-54).

Regarding claim 22, the arguments analogous to those presented above for claims 15, 20, and 21 are applicable to claim 22. Battersby discloses a power supply means enabling a signal detection means for the interception of the image supply signal of the modulating program for the detection of synchronizing signals and field differentiated signals from the program signal to determine the programs modulation rate and accordingly produce signals as representations of the modulation rate for a switching logic (Figure 3; Col. 5, lines 10-67, Col. 6, lines 1-14).

12. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over McLaine et al. (US 6,037,971), Battersby (US 6,069,650), and Stuettler (US 5,870,137) as applied to claim 15 above, and further in view of Roese et al. (US 4,424,520).

Regarding claim 19, the arguments analogous to those presented above for claim 8 are applicable to claim 19.

13. Claims 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaine et al. (US 6,037,971), Taguchi et al. (US 5,850,580), and Stuettler (US 5,870,137) as applied to claim 12 and 17 above, and further in view of Montes (US 5,004,335).

Regarding claim 14, the arguments analogous to those presented above for claims 12 and 13 are applicable to claim 14. While McLaine, Taguchi, and Stuettler do not appear to recognize horizontal and vertical parallax, Montes discloses that it is well known to provide both horizontal and vertical parallax (Col. 4, lines 13-20). Therefore, it would have been obvious to one of ordinary skill to have modified display to include horizontal, vertical, and diagonal image pairs because it would enhance the versatility of the system by providing more viewable directions.

Regarding claim 18, the arguments analogous to those presented above for claim 14 are applicable to claim 18.

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over McLaine et al. (US 6,037,971), Battersby (US 6,069,650), and Stuettler (US 5,870,137) as applied to claim 15 above, and further in view of Montes (US 5,004,335).

Regarding claim 16, the arguments analogous to those presented above for claim 14 are applicable to claim 16.

15. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stuettler (US 5,870,137) in view of Battersby (US 6,069,650).

Regarding claim 23, Stuettler discloses isolating an image pair of separate records, interpolating a first image at a first frequency and interpolating a second image at a first frequency; interpolating the first interpolated record with the second interpolated record at a frequency of half that of the first frequency (Col. 6, lines 10-67, Col. 7, lines 1-33); effecting the

application of synchronizing signals to the incidence of interpolation at a consistent frequency (Col. 7, lines 10-33); and displaying the resultant interpolated signal onto the odd and even field lines of a display (Col. 7, lines 10-33). Stuettler does not appear to recognize two image pairs. However, Battersby discloses that it is known to form one or more stereoscopic pairs (Abstract; Col. 3, lines 62-67, Col. 4, lines 1-52). At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified the image pair disclosed by Stuettler to include two image pairs. The motivation for doing so would have been to provide four views rather than two, thereby enhancing the perception. Therefore, it would have been obvious to combine Stuettler with Battersby to obtain the invention as specified in claim 23.

16. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stuettler (US 5,870,137) in view of Battersby (US 6,069,650) as applied to claim 23 above, and further in view of Roese et al. (US 4,424,529).

Regarding claim 24, the arguments analogous to those presented above for claim 23 are applicable to claim 24. Battersby discloses display using a lenticular array of lenses where the orientation of the array is horizontal and consists of a frequency of lenses such that each lenticular lens covers an odd and even field scan line so as to effect an upper and lower vertical channeling (Figure 2; Col. 3, lines 62-67, Col. 4, lines 1-52). Stuettler and Battersby do not appear to expressly recognize using an electro-optic shutter. However, Roese discloses a power supply means 36 enabling signal detection means for the interception of the modulating program, for the detection of synchronizing signals and field differentiated signals to determine the modulation rate and accordingly produce signals as representations of the modulation rate for transmission (Col. 4, lines 1-60), a display means 22, a means for the transmission of signals 34

representing synchronizing signals and signals representing the modulation rate to a receiving medium 50 incorporated with electro-optic viewing filters, a second power supply means 56 enabling a receiving means to receive a transmitted carrier signal and to detect and re-generate signals representing synchronizing signals and signals representing the modulation rate for their delivery to a switching logic means (Col. 4, lines 61-69, Col. 5, lines 1-47); a switching logic means 64 for the determination and selection of trigger voltages for the synchronization of electro-optic filter presentations (Col. 5, lines 22-47); and electro-optic shutter glasses consisting of a pair of electro-optic light valve elements that respond to the synchronizing voltage selection and present alternations between open and shut stats sot that at any instant one shutter is open for view and the other shutter is shut for view (Figure 1; Col. 5, lines 22-47). At the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified the display disclosed by Stuettler and Battersby to include an electro-optical shutter because it is well known and routinely utilized in the art.

Allowable Subject Matter

17. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art Cited

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 5,260,773 to Dischert for color alternating 3-D TV system; and

U.S. Pat. No. 5,614,941 to Hines for multi-image autostereoscopic imaging system.

Contact Information

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia M Kibler whose telephone number is (703) 306-4072. The examiner can normally be reached on Mon-Thurs 8:00 - 5:30 and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Virginia Kibler can be reached on (703) 306-4072. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Virginia Kibler
10/17/04

MEHRDAD DASTOURI
PRIMARY EXAMINER